

**Amendment and Response**

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Serial No.: 10/034,761

Confirmation No.: 1894

Filed: December 27, 2001

For: MOVING OBJECT ASSESSMENT SYSTEM AND METHOD**Remarks**

The Final Office Action mailed 5 October 2005 has been received and reviewed. Claims 1, 11, 20 and 24-25 have been amended. No further claims have been cancelled or added. Therefore, the pending claims are claims 1-8, 10-17, and 19-25. Reconsideration and withdrawal of the rejections are respectfully requested in view of the amendments and remarks provided herein.

**The 35 U.S.C. §102 Rejection**

The Examiner continues to reject claims 1-25 under 35 U.S.C. §102(b) as being anticipated by Grimson et al. (*Using adaptive tracking to classify and monitor activities in a site*, *Proceedings 1998 IEEE Conference on Computer Vision and Pattern Recognition, Santa Barbara, CA, 1998 June 23-25; pages 22-29*) (hereinafter "Grimson"). The Examiner alleges that all the limitations of the claims are described therein. In response to the Applicants previous arguments, the Examiner indicates that the phrase "physically marked landmark points" can be interpreted broadly such that the "moving objects" of Grimson can be considered landmark points. The Examiner argues that these points in Grimson "are physically marked in that the method and system marks the objects by identifying moving objects." Applicants respectfully traverse the Examiner's rejection and Response to Arguments also provided thereby. However, to move the case to issuance, the claims have been amended such that the Examiner's overbroad interpretation of the term "physically marked landmark points" can clearly no longer be met by the moving objects of Grimson as alleged by the Examiner.

For a claim to be anticipated under 35 U.S.C. § 102(b), each and every element of the claim must be found in a single prior art reference. *See* M.P.E.P. § 2131. Each and every element of the amended claims are not described in Grimson. In fact, as set forth below, Grimson operates in a different manner than set forth in the amended claims.

Each of the amended independent claims 1, 11, 20, and 24-25 describe the use of a plurality of imaging devices to provide image data covering a defined search area. Each field of view of each imaging device includes a field of view portion which overlaps with at least one

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other field of view of another imaging device. Further, the claims set forth the selection and physical marking of the defined search area with a plurality of non-movable landmark points of commonality in field of view portions which overlap (e.g., points selected and physically marked on the non-movable ground during installation of the imaging devices as set forth on page 23, lines 9-18 of the pending application). Image data from the plurality of imaging devices is fused into a single image using a plurality of physically marked landmark points of commonality in field of view portions which overlap. The foreground information of the fused image data is segmented from background information of the fused image data and is used to provide object path data representative of at least one object path of one or more moving objects in the search area. The at least one object path is then operated on as described in the claims.

Grimson does not describe all the limitations of such independent claims. Clearly, Grimson does not physically mark non-movable landmark points in the search area (e.g., the actual area being image such as the ground, parking lot, etc.). Further, for example, Grimson does not describe fusing image data from the plurality of imaging devices into a single image using a plurality of physically marked landmark points of commonality in field of view portions which overlap. Rather, Grimson describes that “[e]ach camera independently tracks the motion of an object in its field of view and stores the image coordinates of its centroid. Each new correspondence between a pair of cameras provides an additional constraint for estimating the cameras’ relative geometry. . . . Corresponding image points of *tracked objects* in a camera pair are then related by a projective linear transformation or homography.” (see page 24, emphasis added) In other words, the fusion of image data of cameras (e.g., calibration) is performed by matching and fitting tracked objects (e.g., moving objects).

This fusion in Grimson is completely different than that described in the pending claims. In the pending claims, the fusing of image data from the plurality of imaging devices into a single image employs using a plurality of physically marked non-movable landmark points of commonality in field of view portions which overlap (i.e., landmark points physically marked in the search area). For example, fusion (e.g., calibration) may employ computing respective homography matrices based on the identification of several landmark points physically marked

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on the scene and sampled through a user interface.

As such, for at least the above reasons, the pending independent claims 1, 11, 20, and 24-25 are not anticipated by Grimson.

Further, the remainder of the rejected claims (i.e., claims 2-8, 10, 12-17, 19, and 21-23) respectively depend on one of the independent claims, either directly or indirectly. Therefore, they include the limitations of the respective independent claim upon which they depend. As such, these claims are also not anticipated by Grimson for the same reasons as provided above.

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**Summary**

It is respectfully submitted that the pending claims are in condition for allowance and notification to that effect is respectfully requested. The Examiner is requested to contact Applicants' Representatives if the above-identified amendment does not lead to issuance of the pending matter at the below-listed telephone number.

Respectfully submitted By

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Direct Dial (612) 305-1216**CERTIFICATE UNDER 37 CFR §1.8:**

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 5 day of DECEMBER, 2005, at 10:27 A.M. (Central Time).

By: Sandy Truehart  
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